CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.15/KRIDL/GSB-1/GR/2014-15 Date : 13.10.2014

GRADATION FOR GSB-I (CLOSE GRADED)
IS: 2720 (Part 4)

Client : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of work : Improvements and Asphalting to Kalasthinagar Chandra Shekar's house road and Cinema tent side road in Dasarahalli in Ward No.15, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 06.10.2014

Date of Testing : 13.10.2014

Sample Source : GSB Mix Plant Bangalore. **Oven Dry Wt (gm) :** 25100

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified Limits
75.0	0	0	0.00	0	100
53.0	990	990	3.94	96.06	80-100
26.50	6250	7240	28.84	71.16	55-90
9.50	4595	11835	47.15	52.85	35-65
4.75	3210	15045	59.94	40.06	25-55
2.36	2255	17300	68.92	31.08	20-40
0.425	4460	21760	86.69	13.31	10-25
0.075	2150	23910	95.26	4.74	3-10
PAN	1190				
Total	25100				

Civil-Tech Consultants & Engineers Bangalore

Remarks: Satisfies MORTH Specifications as per Table 400-1, Grading I

Note:

1.The report shall not be reproduced, except in full, without the written approval of the laboratory.

2. The results indicated above are based on the tests carried out on the samples received in the laboratory.

3. Any Query regarding the report must be reported within 30 days from the date of testing.

M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.15/KRIDL/WMM/Gradation/2014-15 20.10.2014

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of Work : Improvements and Asphalting to Kalasthinagar Chandra Shekar's house road and Cinema tent side road in Dasarahalli in Ward No.15, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 06.10.2014

Date of Testing : 20.10.2014

Material : WMM

Sample Location : WMM Mix Plant Oven Dry Wt (gm): **26000**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	980	980	3.8	96.2	95-100
22.4	6145	7125	27.4	72.6	60-80
11.2	5235	12360	47.5	52.5	40-60
4.75	4750	17110	65.8	34.2	25-40
2.36	3275	20385	78.4	21.6	15-30
0.600	2145	22530	86.7	13.3	8-22
0.075	2285	24815	95.4	4.6	0-8

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.15/KRIDL/BM/Bitumen/2014-15 28.10.2014

BITUMEN CONTENT DETERMINATION OF BITUMINOUS MACADAM MIX

As Per IRC:SP:11-1984

CLIENT	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
AGENCY	**Technical Manager (West),** KRIDL, Bangalore.
NAME OF THE WORK	Improvements and Asphalting to Kalasthinagar Chandra Shekar's house road and Cinema tent side road in Dasarahalli in Ward No.15, BBMP, Bangalore.
REFERENCE	BBMP/DZ./AEE/TDSD/PR/2014-15 Dated: 06.10.2014
SAMPLE I/D	Kalasthinagar Chandra Shekar's house road W.No.15
DATE OF TESTING	28.10.2014

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	482.5	482
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	17.5	18.00
7. Bitumen content in %	3.50	3.60
8. Average	**3.55**	

Note:

- This test report should not be reproduced except in full, without written approval of the laboratory
- The results indicated above are based on the tests carried out on the samples received in the laboratory
- Any Query regarding the report must be reported within 30 days from date of testing.

M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

ಕೆಸಿಡಿಸಿ ಅನುಮತಿಯಿಲ್ಲದೆ ಪುನರುತ್ಪಾದಿಸಬಾರದು
ಮಾರಾಟಕ್ಕಲ್ಲ, ಮರು-ಮಾರಾಟ
ಮಾಡಲಾಗುವುದಿಲ್ಲ, ಮಾರಾಟ
ಮಾಡಲಾಗುವುದಿಲ್ಲ

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.15/KRIDL/BM/Bitumen/2014-15 28.10.2014

GRADATION DETERMINATION OF BITUMINOUS MACADAM MIX

As Per IS 2386 and IRC:SP:11-1984

CLIENT	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
AGENCY	**Technical Manager (West),** KRIDL, Bangalore.
NAME OF THE WORK	Improvements and Asphalting to Kalasthinagar Chandra Shekar's house road and Cinema tent side road in Dasarahalli in Ward No.15, BBMP, Bangalore.
REFERENCE	BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 06.10.2014
SAMPLE I/D	Kalasthinagar Chandra Shekar's house road W.No.15
DATE OF TESTING	28.10.2014

GRADATION AFTER EXTRACTION

Sieve Size in mm	Trail 1				Specified Limits as per MORTH specification table 500-04 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
26.5	0	0	0	100	100
19	36.25	7.51	7.51	92.49	90-100
13.2	121.4	25.16	32.67	67.33	56-88
4.75	225.8	46.80	79.47	20.53	16-36
2.36	54.23	11.24	90.71	9.29	4-19
0.3	11.47	2.38	93.09	6.91	2-10
0.075	4.62	0.96	94.05	5.95	0-8

Sieve Size in mm	Trail 2				Specified Limits as per MORTH specification table 500-04 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
26.5	0	0	0	100	100
19	32.58	6.76	6.76	93.24	90-100
13.2	123.6	25.64	32.40	67.60	56-88
4.75	227.4	47.18	79.58	20.42	16-36
2.36	56.28	11.68	91.26	8.74	4-19
0.3	11.69	2.43	93.68	6.32	2-10
0.075	4.54	0.94	94.62	5.38	0-8

Note:

- This test report should not be reproduced except in full, without written approval of the laboratory
- The results indicated above are based on the tests carried out on the samples received in the laboratory
- Any Query regarding the report must be reported within 30 days from the date of testing.

M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.15/KRIDL/BC/Bit/2014-15 29.10.2014

BITUMEN CONTENT DETERMINATION OF BITUMINOUS CONCRETE MIX

AS PER IRC:SP:11-1984

CLIENT	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
AGENCY	**Technical Manager (West),** KRIDL, Bangalore.
NAME OF THE WORK	Improvements and Asphalting to Kalasthinagar Chandra Shekar's house road and Cinema tent side road in Dasarahalli in Ward No.15, BBMP, Bangalore.
REFERENCE	BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 06.10.2014
SAMPLE I/D	Kalasthinagar Chandra Shekar's house road W.No.15
DATE OF TESTING	29.10.2014

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	474	474
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	26	26.00
7. Bitumen content in %	5.20	5.20
8. Average	**5.20**	

Note:

- This test report should not be reproduced except in full, without written approval of the laboratory
- The results indicated above are based on the tests carried out on the samples received in the laboratory
- Any Query regarding the report must be reported within 30 days from the date of testing

M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.15/KRIDL/BC/Bit/2014-15 29.10.2014

GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

AS PER IS2386 & IRC:SP:11-1984

CLIENT	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
AGENCY	**Technical Manager (West),** KRIDL, Bangalore.
NAME OF THE WORK	Improvements and Asphalting to Kalasthinagar Chandra Shekar's house road and Cinema tent side road in Dasarahalli in Ward No.15, BBMP, Bangalore.
REFERENCE	BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 06.10.2014
SAMPLE I/D	Kalasthinagar Chandra Shekar's house road W.No.15
DATE OF TESTING	29.10.2014

GRADATION AFTER EXTRACTION

Sieve Size in mm	Trail 1				Specified Limits as per MORTH specification table 500-18 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	474	
19	0	0	0	100	100
13.2	42.36	8.94	8.94	91.06	79-100
9.5	37.84	7.98	16.92	83.08	70-88
4.75	82.57	17.42	34.34	65.66	53-71
2.36	93.58	19.74	54.08	45.92	42-58
1.18	42.16	8.89	62.98	37.02	34-48
0.6	34.58	7.30	70.27	29.73	26-38
0.3	22.47	4.74	75.01	24.99	18-28
0.15	36.23	7.64	82.66	17.34	12-20
0.075	45.82	9.67	92.32	7.68	4-10

Sieve Size in mm	Trail 2				Specified Limits as per MORTH specification table 500-18 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
19	0	0	0	100	100
13.2	53.37	11.26	11.26	88.74	79-100
9.5	34.26	7.23	18.49	81.51	70-88
4.75	76.48	16.14	34.62	65.38	53-71
2.36	93.25	19.67	54.30	45.70	42-58
1.18	42.14	8.89	63.19	36.81	34-48
0.6	33.62	7.09	70.28	29.72	26-38
0.3	25.87	5.46	75.74	24.26	18-28
0.15	34.23	7.22	82.96	17.04	12-20
0.075	46.89	9.89	92.85	7.15	4-10

Note:

Þ This test report should not be reproduced except in full, without written approval of the laboratory.

Þ The results indicated above are based on the tests carried out on the samples received in the laboratory.

Þ Any Query regarding the report must be reported within 30 days from the date of testing.

M/s. Civil-Tech Consultants & Engineers

23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com